

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A data bus configuration, comprising:
a control station;
at least one reception station;
a data bus configured to operate in a data and address multiplex mode and coupled to said control station and to said at least one reception station; and
a control bus coupled to said control station and to said at least one reception station, wherein said control station is configured to allocate a logical channel, via said control bus, between said control station and said at least one reception station.
2. (Currently Amended) A method for operating a data bus configuration having a control station, at least one reception station, a data bus configured to operate in a data and address multiplex mode and coupled to said control station and to said at least one reception station, and a control bus coupled to said control station and to said at least one reception station, said method comprising:
transmitting an address by said control station via the data bus;
continuously monitoring the data bus by said at least one reception station;
soliciting said at least one reception station when said address transmitted by said control station matches an address designated for said at least one reception station;
allocating a logical channel between said solicited reception station and said control station, via the control bus; and
interchanging data between said control station and said solicited reception station for a time period that the logical channel remains allocated to said solicited reception station.
3. (Currently Amended) The method according to claim 2, wherein said ~~soliciting~~ ~~step further comprises soliciting said~~ at least one reception station is solicited through the control bus by calling the allocated logical channel at a same time as a transfer of the data.

4. (Currently Amended) The method according to claim 2, wherein said ~~soliciting step further comprises soliciting said~~ at least one reception station is solicited through the control bus by calling the allocated logical channel before a transfer of the data.

5. (Currently Amended) A data bus configuration, comprising:
a control station;
at least one reception station;
a data bus configured to operate in a data and address multiplex mode and coupled to said control station and to said at least one reception station; and
a control bus coupled to said control station and to said at least one reception station, wherein said control station is configured to allocate a logical channel, via said control bus, between said control station and said at least one reception station,
wherein said control station and said at least one reception station interchange data for a time period while said logical channel remains allocated to said at least one reception station.

6. (Currently Amended) The data bus configuration according to claim 1, wherein said control station is configured to transmit an address of said at least one ~~[[a]]~~ reception station~~[[unit]]~~ on said data bus before data is to be interchanged between said control station and said at least one reception station~~[[unit]]~~.

7. (Currently Amended) The data bus configuration according to claim 6, wherein said at least one reception station is configured to continuously monitor said data bus and determine when said address transmitted by said control station matches an address designated for said at least one reception station.

8. (Currently Amended) The data bus configuration according to claim 7, wherein said control station allocates a logical channel between said control station and said at least one reception station, enabling ~~such that~~ data ~~[[can]]~~ to be interchanged between said respective stations.

9. (Currently Amended) The data bus configuration according to claim 8, wherein data is interchanged between said control station and said at least one reception station for a time period that the logical channel remains allocated on said control bus.

10. (Currently Amended) The data bus configuration according to claim 8, wherein said at least one reception station is configured to continuously monitor said control bus and determine when a logical channel transmitted by said control bus matches the allocated logical channel designated for said at least one reception station.

11. (Currently Amended) The data bus configuration according to claim 9, wherein data is interchanged between said control station and said at least one reception station until the control station allocates the logical channel to another reception station.

12. (Currently Amended) The method ~~data bus configuration~~ according to claim 3, wherein data is interchanged between said control station and said at least one reception station until the control station allocates the logical channel to another reception station.

13. (Currently Amended) The method ~~data bus configuration~~ according to claim 4, wherein data is interchanged between said control station and said at least one reception station until the control station allocates the logical channel to another reception station.